

8(3)

AUTHOR:

Portnoy, M. G., Engineer

SOV/105-58-12-4/28

TITLE:

On the Case of Subharmonic Resonance During the Incomplete Phasing Conditions on the Line (Sluchay subgarmonicheskogo rezonansa pri nepolnofaznom rezhime linii)

PERIODICAL:

Elektrichestvo, 1958, Nr 12, pp 18 - 22 (USSR)

ABSTRACT:

The following case is investigated: The voltage transformers which are at either end of the line connected up to the phase to be cut off were damaged when one phase of the 110 kV-line, which was 67 km long, was cut off. The investigations carried out by the VNIIE together with the Moldavenergokombinat (V. M. Popov, G. T. Fomichev, N. B. Glagoleva, M. P. Savitskaya, and the author took part in it) showed that a subharmonic resonance results from disconnecting one phase of the line. With this resonance the current strength in the voltage transformer rises approximatively fifteen-fold when compared with the magnetising current. It was determined that the magnetisation curve of voltage transformers is far remote from that described in formula (1) (which is recommended in the works, references 1,2,3,4). The investigation could

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therefore not be carried out according to the methods described in the works (Refs 1,2,3,4). The method of mathematical modelling was applied which is described in Korn's work (Ref 5). The differential equation (3) is derived and the equivalent diagram of the circuit during the incomplete phasing conditions on the line is investigated. A comparison of the oscillograms shows that mathematical modelling according to formula (3) leads to results which correspond well with those of the test. An explanation for the production of subharmonic oscillations on the circuit-diagram having been investigated here is given. Then the dependence of the subharmonic current strength on the circuit parameter is investigated and the corresponding formulae are derived. In conclusion the following was determined: In order to avoid the formation of subharmonic resonance on 110 kW lines when these are transformed to lines with incomplete phasing conditions it is sufficient to insert a transducer resistor of 4 kOhm, calculated for a continuous current flow of 0.2 amperes, on the high tension side of the voltage transformer. The operating of the voltage transformer is not getting defective by putting in such a resistor. This precaution, is

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but only necessary in cases where an automatic phaselike reconnection of the line is carried out with an automatic crossing on a line with incomplete phasing conditions. When an automatic crossing on a line with incomplete phasing conditions takes place, it is sufficient to disconnect the voltage-transformers before disconnecting the phase. The voltage transformers can be reconnected later on in case they are wanted. There are 8 figures and 7 Soviet references.

SUBMITTED: May 31, 1958

Card 3/3

SOV/144-59-2-3/19

AUTHOR: Fel'dbaum, A.A. Professor, Doctor of Technical Sciences,  
Luginskiy, Ya.N. and Portnov, M.G., Engineers

TITLE: Discussion (on the Use of Electronic Simulators for  
Investigating the Stability of Parallel Operation of  
Alternators of Comparable Power)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika,  
1959, Nr 2, pp 27 - 30 (USSR)

ABSTRACT: Professor A.A. Fel'dbaum, Doctor of Technical Sciences at  
the USSR Academy of Science's Institute of Automatics  
and Telemechanics, said that some of the faults he had  
to find with the paper were the absence either of detailed  
comparisons with practical or theoretical investigations  
or of comparison with results obtained on other analogue  
machines, or mention of electromechanical models or  
digital methods. In the USA analogue machines have been  
used for problems on the control and flow of power in  
large systems. The advantage of operating analogue  
machines in real time was the possibility of including  
real hardware such as regulators and relay protection,  
etc. A disadvantage was the need for the intermediate  
step of setting up all the equations in a suitable form; ✓

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SOV/144-59-2-3/19

Discussion (on the Use of Electronic Simulators for Investigating the Stability of Parallel Operation of Alternators of Comparable Power)

any factor left out would not appear in the final solution. The question of error was important and difficult; in fact, in some cases the assessment of error was more tedious than the problem itself. The errors likely to be expected ranged from  $\pm 0.01\%$  to  $\pm 1\%$ , depending on which unit was considered. There were, however, three important influences on accuracy. The first was that due to error accumulation. In the simplest form it appears when commoning the outputs of several units. The second was amplifier error - was more serious and was a feature of the successive connection of amplifiers. Thirdly, there was feedback error, which when simulating a highly undamped process, could give hopelessly wrong results. The use of analogue and digital machines in hybrid arrangements was briefly hinted at. Ya.N. Luginskiy and M.G. Portnoy, Engineers at the All-Union Electrical Energy Scientific Research Institute, gave some additional references to published work on the

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SOV/144-59-2-3/19  
Discussion (on the Use of Electronic Simulators for Investigating  
the Stability of Parallel Operation of Alternators of Comparable  
Power)

present topic. They had done work in this field in 1958 (Ref 6). The first step in their analysis had been the behaviour of an alternator when connected to infinite busbars. The starting point was the Gorev-Park set of equations. The simulation later included various kinds of voltage regulator. The machine comprised several blocks from IPT-5 and KNB. It was used for studies on self-synchronization (Ref 7), resynchronization (Ref 8), excitation control (Ref 9), prime-mover governing (Ref 10) and so on. A preliminary study was made of the problem of interconnecting several generating stations of comparable power. The strict solution required a prohibitive amount of hardware. There are 10 references, 7 of which are Soviet and 3 English. ✓

ASSOCIATIONS: IAT and VNIIE

Card3/3

MAMIKONYANTS, L.G., kand.tekhn.nauk; PORTNOY, M.G., inzh.

Synchronization process of water-wheel generators. Elektrichestvo no.3:  
18-23 Mr '59. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki.  
(Electric generators)

PORTNOY, M. G., Cand Tech Sci -- (diss) "Resynchronization in Electrical Systems After Desynchronization of the APV [?]." Moscow 1960. 16 pages. (Ministry of Higher Education USSR, Moscow Power Institute, Order of Lenin); 150 copies; price not given. (KL, 25-60, 134)



8(5)

AUTHOR:

Portnoy, M.G., Engineer

SOV/105-60-1-15/25

TITLE:

On the Resynchronization of Synchronous Generators

PERIODICAL:

Elektrichestvo, 1960, Nr 1, pp 73-78 (USSR)

ABSTRACT:

A method for the computation of the conditions under which the synchronization is restored, as well as for the determination of the length of the asynchronous running is given here. The process is described first and the phenomena occurring during the interruption of synchronization and its restoration are investigated. This is done with the example of a turbogenerator which delivers its power into a system with unlimited output. It is shown that in the case of both parts of the system showing outputs comparable with each other, each part can be replaced by an equivalent generator. The resynchronization of a generator with a system of unlimited output, as well as the resynchronization of two machines comparable with each other, are therefore investigated here. In the first case, the resynchronization is warranted, provided the equation (4) is adhered to. Vice versa, the resynchronization can occur when the mean slip is nearing its stabilized magnitude during

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On the Resynchronization of Synchronous Generators

SOV/105-60-1-15/25

overcompensation (Fig 2, curve 2). The method explained in the paper (Ref 6) can be applied for the setup of the curve for the mean slip. The extreme magnitude for the moment  $M_m$  (difference between the turbine moment and the inherent moment) at which resynchronization sets in without fail, is determined from equation (7). The results of its computation from equation (7) coincide with those which were obtained from the mathematical simulator. The following persons participated in the computations with the mathematical simulator: L.M. Gorbunova and Ts.G.Gugunishvili. The circuit schemes used are mentioned in the paper (Ref 7). Computations for the determination of the synchronization probability were also carried out with the mathematical simulator.- Computing the dynamic stability of two machines comparable with each other with respect to their output is carried out usually in accordance with the method of the reduction to one machine, shown in the paper (Ref 3). The conditions under which a resynchronization of two generators occurs are investigated and the necessary equations are written down.- The following is stated in conclusion: After the obstruction of the dynamic stability or after an asynchronous switching on, a resynchronization occurs

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On the Resynchronization of Synchronous Generators

SOV/105-60-1-10/20

often in electric systems without the interference of the personnel. The most essential influence on the resynchronization is exerted by the turbine moments (which after enter the influence of the speed regulators), the asynchronous moments and the moments caused by the load and efficiency losses in the transmission lines.- If the conditions for the resynchronization are not adhered to, measures must be taken which warrant a resynchronization, as for example: automatic installations action on the controllers of the primary motors, or installations carrying out the switching off (and switching on again after resynchronization) of some consumers or a section of the power station generators.- The test with turbogenerator TV-25 is described in the appendix and its results are compared with those of the computation, a good agreement being found. Apart from the author, A.Z. Arasnovskiy, A.M. Gittel'makher, V.S. Krivko, V.M. Nattochly and L.A. Orlov participated in the test. There are 7 figures and 1 Soviet references.

ABSTRACT: Vsesoyuzny nauchno-issledovatel'skiy institut elektromekhaniki  
Card 2/4

On the Resynchronization of Synchronous Generators

SOV/105-40-1-15/25

(All-Union Scientific Research Institute for Electric Power  
Engineering)

SUBMITTED: June 14, 1979

Card 4/4

RCSMAN, Lev Vladimirovich; PORTNOY, M.G., red.; SHIROKOVA, M.M.,  
tekhn. red.

[Group control of the excitation of synchronous generators  
of hydroelectric power stations] Gruppovoe upravlenie voz-  
buzhdeniem sinkhronnykh generatorov gidroelektrostantsii.  
Moskva, Gosenergoizdat, 1962. 167 p. (MIRA 15:8)  
(Electric generators)  
(Hydroelectric power stations)

GRUZDEV, Igor' Aleksandrovich; KADOMSKAYA, Kira Panteleymonovna;  
KUCHUMOV, Leonid Aleksandrovich; LUGINSKIY, Yakov  
Natanovich; PORTNOY, Marlen Gdalevich; SOKOLOV, Nikolay  
Ivanovich; NIKOLAYEVA, M.I., red.

[Use of analog computers in electric power systems;  
methods for studying transient processes] Primenenie  
analogovykh vychislitel'nykh mashin v energeticheskikh  
sistemakh; metody issledovaniy perekhodnykh protsessov.  
[By] I.A.Gruzdev i dr. Moskva, Energiia, 1964. 407 p.  
(MIRA 18:2)

GORBUNOVA, L.M., inzh.; LUGINSKIY, Ya.N., inzh.; NOVAKOVSKIY, A.N., inzh.;  
PORTNOY, M.G., kand.tekhn.nauk; STRYUTSKOV, V.K., inzh.

Analog computer for studying electromechanical transients in  
electric power systems. Elektrichestvo no.5:1-6 My '65.

(MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektro-  
energetiki.

L 11052-66 EWT(d)/EWP(I) IJP(c) BB/GG	
ACC NR: AP6004791	SOURCE CODE: UR/0105/65/000/005/0001/0006
AUTHOR: <u>Gorbunova, L. M.</u> (Engineer); <u>Luginskiy, Ya. N.</u> (Engineer); <u>Novakovskiy, A. N.</u> (Engineer); <u>Stryutskov, V. K.</u> (Engineer); <u>Portnov, M. G.</u> (Candidate of technical sciences)	
ORG: none	64 B
TITLE: Analog computer for studying transient electromechanical processes in power networks	
SOURCE: Elektrichestvo, no. 5, 1965, 1-6	
TOPIC TAGS: analog computer, computer application, computer calculation, computer simulation, electric engineering, electric network	
ABSTRACT: The article describes the design and operation of an analog electronic generator built to simulate a power network for the purpose of studying the electromechanical transients. The terminal voltage of this generator is computed from the currents either by the Gorev-Park equations with the necessary assumptions or by the equations of motion assuming a constant emf behind the transient impedance. The $\sin(\omega_0 t + \delta)$ function is obtained by the method of composing velocities rather than by the method of composing angles. This way the circuit elements of the computer do not have to meet such stringent requirements as to their dynamic characteristics; the function converter has to work over the range of angle variation from $-\pi$ to $+\pi$ instead of covering a range of $6\pi$ ; also distortions at the instant of periodization are thus avoided. The entire device consists of five units. In the first one, the	
Card 1/3	UDC: 681.14:621.311.1



L 11052-66

ACC NR: AP6004791

"circuit equation unit" (CEV) solves the equivalent equations of electromagnetic processes in the rotor; it also calculates the difference between electrical and mechanical torques as well as the accelerations. The latter quantity is fed into the second unit, the "integration of the equation of motion unit" (IEMV) where the displacement angle is calculated. The solution is converted into a voltage at line frequency in the third unit, the "voltage conversion unit" (VCV) which is also the output stage of the device. There are two more intermediate units, namely one for current conversion (CCV) where the alternating load current is resolved into the direct-axis and the quadrature-axis component. The regulator unit (RV) contains a model of both the excitation and the speed regulators. The device has certain features which made it possible to reduce its size as compared to the universal computer for solving the same problem: the number of amplifiers necessary for performing multiplication with components along the d- and q- axes has been reduced by half through combining the SBP-1M paired product units feeding the common summator. Another size-reducing feature is the use of RC circuits in the feedback loops and at the inputs of amplifiers. The article continues with the analysis of several operations performed by the computer, namely: the simulation of synchronous machine equations, the transfer from a mathematical model of the generator to a static model of the network (the latter is done by the "voltage conversion" and the "current conversion" units, while the former is done by the CEV and the IEMV). The regulator unit is described next, it is designed for varying and adding parameters and simulating frequency or angle regulation as well as water hammer or other conditions in the turbine-generator system. For calculation

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ACC NR: AP6004791

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lating stability and asynchronous conditions it is common practice to replace individual portions of a complex power system by equivalent generators and to solve their equations of motion including all electromagnetic and mechanical torques. An analog network for this kind of calculation is shown here separately. The article concludes with a description of general features of the model EGS-2 analog device which surpasses all other existing medium-capacity models in the number of multiplying networks. All components are designed for high reliability, with thyrites, semiconductor and thin-film resistors; the same type elements are used in the multiplying networks and in the sine-cosine function generators. The computer was checked out in simulating and calculating a 115 MW hydro-generator SV 1250/83 feeding an infinite bus through a line whose impedance is  $x_L = 0.28$ ,  $r_L = 0.06$  (per unit), at constant torque and constant excitation. The accuracy of the computer calculations were evaluated and on this basis several systems installed in Siberia were studied. It is suggested that development work be continued toward simplifying the electronic analog generator construction, also toward increasing its accuracy and stability. Orig. art. has: 7 figures and 8 formulas.

[JPRS]

SUB CODE: 09 / SUBM DATE: 06Feb64 / ORIG REF: 007 / OTH REF: 002

Card

3/3

L 18448-66

ACC NR: AP6002553

(A)

SOURCE CODE: UR/0286/65/000/023/0053/0053

AUTHORS: Nartov, Yu. A.; Sobolev, V. M.; Portnoy, M. G.

53  
B

ORG: none

10  
TITLE: Acoustic receiver. Class 42, No. 176699

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 53

TOPIC TAGS: acoustic transducer, acoustic detector, electromagnetism, magnetic circuit, radio receiver

ABSTRACT: This Author Certificate presents an acoustic receiver based on the production of an output voltage by modulating a magnetic flux, and containing an electromagnetic system and a membrane. To provide for selective sampling of the acoustic signals and to increase the sensitivity, the electromagnetic system has resonating plates made of magnetically soft material, mounted symmetrically in the center part of the magnetic circuit (see Fig. 1).

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UDC: 534.232:534.121.1

L 18448-66

ACC NR: AP6002553

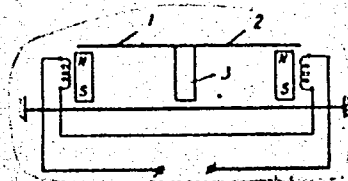


Fig. 1. 1 and 2 - resonating plates; 3 - center rod (center part) of magnetic circuit.

Orig. art. has: 1 diagram.

SUB CODE: 17, 09/ SUBM DATE: 14Dec64

Card 2/2

*mgs*

~~L 21789-66~~ EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(l) JD  
ACC NR: AP6002915 SOURCE CODE: UR/0286/65/000/024/0079/0079

AUTHORS: Martov, Yu. A.; Portnoy, M. G.

ORG: none

TITLE: A device for controlling the thickness of galvanic coatings of items.  
Class 42, No. 177095

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 79

TOPIC TAGS: thickness gage, sensitivity increase, control equipment, magnetic analysis, circuit design

ABSTRACT: This Author Certificate presents a device for controlling the thickness of galvanic coatings of items. The device includes an electric induction detector with a three-bar symmetric core. The lateral bars of the core are provided with differentially connected magnetizing windings and contain gaps. These gaps are designed for holding the item being controlled and the calibration item. The middle bar of the core is provided with a measurement winding (see Fig. 1). The device also has an electric generator (made of semiconductor triodes) which supplies the power for the detector. The design increases the device's sensitivity.

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UDC: 531.717.55:621.357.76

L 21789-66  
ACC NR: AP6002915

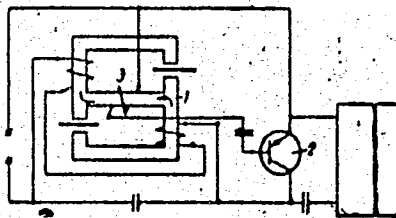


Fig. 1. 1 - detector; 2 - generator;  
3 - magnetizing winding.

The magnetizing windings of the detector serve as the inductance of the generator loop and are connected to the triode generator collector circuit. The measurement winding of the detector is connected to the base circuit of the triode. Orig. art. has: 1 figure.

SUB CODE: 13, 14/ SUBM DATE: 08Dec64

Card 2/2 ULR

ACC NR: AM5011709

MONOGRAPH

UR

Gruzdev, Igor' Aleksandrovich; Kadomskaya, Kira Pantoleymonovna; Kuchumov, Leonid Aleksandrovich; Luginskiy, Yakov Natanovich; Portnoy, Marlen Gdalevich; Sokolov, Nikolay Ivanovich

16  
Using analog computers in power systems; methods for analyzing transient processes (Primeneniye analogovykh vychislitel'nykh mashin v energeticheskikh sistemakh; metody issledovaniy perekhodnykh protsessov) Moscow, Izd-vo "Energiya", 1964. 407 p. illus., biblio. 5,000 copies printed.

TOPIC TAGS: analog computer, electromagnetism, electric engineering, electric power engineering, mathematic model, computer circuit, computer application, ~~computer application~~

PURPOSE AND COVERAGE: This book is concerned with the application of analog computers to the study of electromechanical and electromagnetic transient processes in power systems. It presents methods for mathematical modeling, circuits for special-purpose devices used in general-purpose computer studies, and examples of completed investigations. The book is intended for engineers at scientific research and planning institutes, workers at power systems, and students taking advanced courses in electric power and electromechanics.

TABLE OF CONTENTS [abridged];

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UDC: 681.142.33/.34:620.9

ACC NR: AM5011709

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SUB CODE: 09,13,20/ SUBM DATE: 31Oct64/ SOV REF: 083/ OTH REF: 001

Card 2/2



L 22157-66

ACC NR: AP6012997

SOURCE CODE: UR/0105/65/000/006/0001/0005  
42B

AUTHOR: Mamikonyants, L. G. (Doctor of technical sciences); Portnoy, M. G.  
(Candidate of technical sciences); Khachaturov, A. A. (Candidate of technical sciences)

ORG: VNIIE

TITLE: Generalization of the results of experimental application of asynchronous operating conditions to power systems

SOURCE: Elektrichestvo, no. 6, 1965, 1-5

TOPIC TAGS: hydroelectric power plant, turbine, electric switch

ABSTRACT: Over the past 15 years brief asynchronous operating conditions have been often used for the increase in stability and reliability of power systems. It is of importance for the further development of the theory and practice of asynchronous operation to survey and generalize the results of experiences with such types of operation. Consequently, asynchronous operating conditions affecting entire power systems or their separate parts are being discussed. The results of the study of a large body of data shows that 1) turbogenerators with indirect cooling of windings may work without excitation through 30 min intervals without signs of damage; 2) in hydrogenerators excitationless work leads to significant overloading and, consequently, hydroelectric plants should contain protective devices separating the generator in question from the

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UDC: 621.31

L 22157-66  
ACC NR: AP6012997

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general network; 3) although the devices for repeated switching with self-synchronization are effective in establishing parallel operation, they are only seldom installed because of their relative complexity; 4) nonsynchronous repeated switching devices are, on the other hand, simple setups for fast re-establishment of synchronization; in 80% of the switching there occurs resynchronization; in only 1% of cases there appeared a prolonged asynchronous situation; 5) some resynchronizations failed to materialize only because of related network interruptions caused by incorrect operation of protecting devices or of the plant personnel; and 6) greatest damage was reported in instability cases involving small power-deficient systems connected to large power networks. The article concludes with a list of problems deserving further attention. Orig. art. has: 5 tables. [JPRS]

SUB CODE: 10, 09 / SUM DATE: none / ORIG REF: 003

Card 2/2 *dda*

AZAR'YEV, D.I., kand. tekhn. nauk (Moskva); VENIKOV, V.A., prof.,  
doktor tekhn. nauk (Moskva); LITKENS, I.V., dotsent, kand.  
tekhn. nauk (Moskva); MAMIKONYANTS, I.G., prof., doktor  
tekhn. nauk (Moskva); PORTNOY, M.G., kand. tekhn. nauk  
(Moskva); SOVALOV, S.A., kand. tekhn. nauk (Moskva)

Fundamentals of the determination of power system stability.  
Elektrichestvo no.11:1-8 N '63. (MIRA 16:11)

PORTNOY, M.G., kand.tekhn.nauk

Resynchronization of weakly coupled power systems. Izv. VNIIE  
no.15:4-20 '63.

Use of a small parameter technique in self-oscillatory and resonant  
systems approaching a conservative state. Ibid.:179-187  
(MIRA 16:12)

GORBUNOVA, L.M., inzh.; PORTNOY, M.G., kand.tekhn.nauk

Mathematical modeling of a synchronous machine taking saturation into  
account. Trudy VNIIE no.15:96-105 '63. (MIRA 16:12)

GLAGOLEVA, N.B., inzh. (Moskva); GORBUNOVA, L.M., inzh. (Moskva); PORTNOY, M.G.,  
kand.tekhn.nauk (Moskva); KHACHATUROV, A.A., kand.tekhn.nauk (Moskva)

Asynchronous characteristics of synchronous generators. Elektrichestvo  
no.7:29-33 J1 '63. (MIRA 16:9)  
(Electric generators)

PORTNOY, M.G., kand. tekhn. nauk; RUDENKO, Yu.N., kand. tekhn. nauk;  
YASNIKOV, V.M., inzh.

Joining of Siberian power distribution networks by weak intersystem  
couplings. Elek. sta. 34 no.5:37-43 My '63. (MIRA 16:7)

(Siberia--Interconnected electric utility systems)

D.17995-63

BDS

S/0105/63/000/007/0029/0033

ACCESSION NR: AP3004221

AUTHOR: Glagoleva, N. B. (Engineer); Gorbunova, L. M. (Engineer);  
Portnoy, M. G. (Candidate of technical sciences); Khachaturov, A. A.  
(Candidate of technical sciences)

TITLE: Asynchronous characteristics of synchronous generators 0

SOURCE: Elektrichestvo, no. 7, 1963, 29-33

TOPIC TAGS: synchronous generator

ABSTRACT: For calculating asynchronous conditions and for resynchronization of generators in power systems, it is necessary to know the synchronous machine parameters as functions of slip within 0.001-0.1. The article suggests a simple method of experimental determination of asynchronous characteristics of steam- and hydro-turbine generators and describes a few actual measurements. The generator is disconnected and demagnetized; then, an a-c voltage

Cord 1/2



L 17995-63

ACCESSION NR: AP3004221

from a separate source is applied to the stator while the rotor is driven at various rpm's. Stator current, voltage, and active power are recorded by an oscillograph. From this data, the electromagnetic torque and direct-axis and quadrature-axis impedances vs. slip can be calculated (formulas supplied). A type T-2-50-2, 50-Mw, steam-turbine generator, an ASEA 3.4-Mw, salient-pole hydro-, a VG-500/9500, 7.4-Mw hydro-, and a VGS-700/100-48, 21-Mw hydro-turbine generators were tested. Detailed data is tabulated. G. A. Bakunts, A. P. Germanov, L. M. Zisman, P. I. Lapchenko, and Yu. G. Fokina took part in the tests. The method is recommended for testing prototypes at generator-manufacturing plants. Its drawbacks are: (a) inapplicability in the case of hydroelectric generators without amortisseur windings and (b) neglectance of machine saturation. Orig. art. has: 6 figures, 16 formulas and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki, Moscow (All-Union Scientific Research Institute of Electrical Power Engineering)

SUBMITTED: 07Mar62

DATE ACQ: 08Aug63

ENCL: 00

SUB CODE: EE

NO REF SOV: 003

OTHER: 001

Card 2/2

L 11051-66

ACC NR: AP6004792

SOURCE CODE: UR/0105/65/000/005/0090/0090

AUTHOR: Burgsdorf, V. V.; Gortinskiy, S. M.; Drozdov, N. G.; Kulakovskiy, V. B.;  
Lindorf, L. S.; Mel'nikov, N. A.; Petrov, I. I.; Portnov, M. K.; Syromyatnikov, I. A.;  
Fedoseyev, A. M.; Khachaturov, A. A.; El'kind, Yu. M.

ORG: none

TITLE: Doctor of engineering sciences, Professor L. G. Mamikonyants

SOURCE: Elektrichestvo, no. 5, 1965, 90

TOPIC TAGS: electric engineering personnel, electric engineering

ABSTRACT: The article was written in honor of Lev Grazdanovich Mamikonyants on the occasion of his 50th birthday and upon his completion of 30 years of scientific and industrial activity. He graduated from the Azerbaydzhan Industrial Institute in 1938, whereupon he worked at the Central Industrial Research Laboratory of Azenergo first as Electrical Engineer and then as Chief Engineer. His scientific activity begun during the student years at the university laboratories for electrical machinery and high-voltage techniques. From 1941 to 1945 he served in the Soviet Army and became a member of the Communist Party in 1942. Since 1945 he has been working with the VNIIE (All-Soviet Scientific Research Institute of Electric Power) at the State Industrial Commission on Power and Electrification of the USSR, in charge of the Electrical Machinery Laboratory now and also as head of the Department of Electrical Machinery, Insulation and Automation. Since 1953 he has also been the Vice-Director of the Institute of Scientific Affairs. He received the degree of Doctor of

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L: 051-66  
ACC NR: AP6004792

4  
Engineering Sciences in 1959 and was appointed Professor in 1961. Much theoretical and practical work has been done under his leadership at the Electrical Machinery Laboratory which he helped to set up. Problems concerning the theory of synchronous machines leading to their improved operation were worked out here (asynchronous condition after loss of excitation, simplified method of compensator starting, self-synchronization of generators, etc.). L. G. Mamikonyants is also active in scientific research coordinating committees on power and electrification in the USSR. He sits also on the Committee for the Determination of Electrical Equipment Parameters and on the Joint Scientific Council of the Moscow Power Institute. Furthermore, he is on the editorial board of Elektrichestvo. During his entire career he has published about 60 works, many of them resulting from basic research. At the Moscow Power Institute he taught a course on "Special Problems in Electric Power Stations" from 1952 to 1954 and on "Testing of Synchronous Machines" from 1953 to 1954. The texts of his lectures were printed in the form of a compendium. He is very effective in training the young generation of students and assisting them in earning their degrees. L. G. Mamikonyants participates in the activities of the VNIIE both as recruiter and as lecturer. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUBM DATE: none

Card 2/2

PORTNOY, M.M.

Soil studies in slope terracing. Pochvovedenie no. 12:48-56  
(MIRA 19:1)  
D '65

1. Moldavskiy nauchno-issledovatel'skiy institut sadovodstva,  
vinogradarstva i vinodeliya. Submitted January 2, 1963.

BURGSDORF, V.V.; GORTINSKIY, S.M.; DROZDOV, N.G.; KULAKOVSKIY, V.B.; LINDORF, L.S.; MEL'NIKOV, N.A.; PETROV, I.I.; PORTNOY, M.K.; SYROMYATNIKOV, I.A.; FEDOSEYEV, A.M.; KHACHATUROV, A.A.; EL'KIND, Yu.M.

Lev Grazdanovich Mamikonians; on his 50th birthday and the 30th anniversary of his scientific and practical work. Elektrichestvo no.5:90 My '65. (MIRA 18:6)

*for duty, M. Kh.*  
KARTVELISHVILI, Yu.L., kand.tekhn.nauk; PORTNOY, M.Kh., inzh. (Rostov-na-Donu)

Ball screws for electric ballast layers. Put' i put.khoz.  
no.12:16 D '57. (MIRA 10:12)  
(Ballast (Railroads))

PORTNOY, M.V. (Vladivostok)

Bronchogenic cysts of the posterior mediastinum. Grad. khir.  
5 no.2:115-117 Mr-Ap'63 (MIRA 1762)

PORTNOY, M. V.

OKraska v mashinostroenii. Kiev, Mashgiz, 1949. 88, [4] p. illus.  
(Tekhnologiya mashinostroeniia)

Bibliography: p. [90].

Painting in mechanical engineering.

DLC: TJ1167.P66

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library  
of Congress, 1953.



PORTNOY, M.Ye.

Network planning in metallurgy. Metallurg 10 no.5:34-35 My '65.  
(MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii  
proizvodstva i truda chernoy metallurgii.

ZHIVAGO, V.I.; FORTNOY, M.Ye.

[Progressive practices in the repair of heating arrangements  
in rolling mills] (peredovoi opyt remontov nagrevatel'nykh  
ustroystv prokatnykh tsekhov. Moskva, Metallurgiya, 1964.  
36 p. (MIRA 17:10)

PHASE I BOOK EXPLOITATION

300

Portnoy, Moisey Yevl'yevich, Engineer

Peredovoy opyt organizatsii remonta martenovskikh pechey (Modern Practice in Open-hearth Furnace Maintenance and Repair); Iz opyta metallurgicheskikh zavodov Pridneprov'ya (Experience of Metallurgical Plants of the Dnieper Region) Dnepropetrovsk, Dnepropetrovskoye oblastnoye izd-vo, 1957. 38 p. (Biblioteka peredovogo opyta) 1,200 copies printed.

Ed.: Shtein, M.; Tech. Ed.: Kolomoitseva, V.

PURPOSE: This pamphlet was written to inform engineers, technicians, foremen and skilled workers engaged in the maintenance and repair of open-hearth furnaces of the most advanced methods of maintenance developed in the metallurgical plants of the Dnieper area.

Card 1/4

Modern Practice in Open-hearth Furnace Maintenance and (Cont.) 300

COVERAGE: The author discusses modern time-saving maintenance and repair methods for open-hearth furnaces as a means of increasing production and of reducing down time. Methods dealing with demolition, removal of debris, and the rebuilding of brickwork by utilizing specially adapted machinery are described in detail. The coordination of work and the proper use of machinery is emphasized. The necessity of following work schedules and of adhering to established technical procedures is also stressed. There are no references and no personalities.

TABLE OF  
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1. Demolition of brick work	6

Card 2/4

Modern Practice in Open-hearth Furnace Maintenance and (Cont.) 300

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| 2. Control of operating conditions and<br>planning of related maintenance and<br>repairs | 33 |

Card 3/4

Modern Practice in Open-hearth Furnace Maintenance and (Cont.) 300

3. Standardization of maintenance and repair methods 34
4. Modern methods of masonry work at the Plant im. Dzerzhinskiy 35

AVAILABLE: Library of Congress

(TN740.P65)

Card 4/4

CM/lrb  
4 June 1958

FORTNOY, M.Ye.

New developments in research. Still 25 m. 2:760 Ag 165.  
(MIRA 18:8)

PORTNOY, M.Ye.

New developments in research. Stal' 25 no. 8:858 3 '65.

New developments in research. Ibid:866 (MIRA 18:9)



BOGUSLAVSKIY, Isaak Yakovlevich; BOCHAROV, Yuriy Grigor'yevich; LEVCHENKO, Dmitriy Vasil'yevich; PORTNOY, Moisey Yevseyevich; MERKOV, S.M., red.; AVHUTSKAYA, R.F., red.izd-vs; ISLENT'YEVA, P.G., tekhn.red.

[Establishing norms and the work organization for the repair of metallurgical furnaces] Tekhnicheskoe normirovanie i organizatsiya truda na remontakh metallurgicheskikh pechei. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 316 p.

(MIRA 13:10)

(Metallurgical furnaces--Maintenance and repair)

PORTNOY, M. Z.

Suppurative follicular cyst in early childhood. Stomatologia 40  
no. 1: 95-96 Ja-F '61. (MIRA 14:5)

1. Iz Izmail'skoy detskoy bol'nitsy (glavnyy vrach S.V. Voltsinger).  
(TEETH--DISEASES)

PORTNOY, M. Ya., inzhener; SHTEYN, M., redaktor; KOLOMOYTSEVA, V.,  
tekhnicheskii redaktor

[Progressive practices in repairing open-hearth furnaces; practices  
of metallurgical plants of the Dnieper region] Peredovoi opyt  
remonta martenovskikh pechei; iz opyta metallurgicheskikh zavodov  
Pridneprov'ia. [Dnepropetrovsk] Dnepropetrovskoe obl. izd-vo, 1957.  
38 p. (MLRA 10:9)

(Open-hearth furnaces---Maintenance and repair)

PORTNOY, N. D.

Portnoy, N. D. "Automatic flux welding at the Ural Plant named Stalin", Trudy Vsesoyuz. konf-tsii po avtomat. svarke i od flyusom, 3-6 October 1947, Kiev, 1/40, p. 27-33.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1949).

PORTNOY, N.D., kand.tekhn.nauk

Spot welding of high-capacity railroad cars. Svar. proizv. no.3:19-22  
Mr '61. (MIRA 14:3)

1. Uralvagonzavod.  
(Railroads—Freight cars) (Electric welding)

*PORTNOY, N.D.*

PORTNOY, N.D., kand.tekhn.nauk; MAZEL', Yu.S., inzh.; OLESHKOV, Yu.V., inzh.

Mechanizing the assembly line for welding freight car chutes.  
Svar.proizv. no.7:13-16 JI '57. (MIRA 10:10)

1.Uralvagonzavod.

(Railroads--Freight cars--Welding)  
(Assembly line methods)

PORTNOY, N.D., kand.tekhn.nauk

Welding AMts, AD1 and AMr3 aluminum alloys. Trudy ETO sud. prom.  
no.33:36-44 '59. (MIRA 13:9)  
(Aluminum alloys--Welding)

*Portnoy, M.D.*

PORTNOY, H.D.; kand.tekhn.nauk; GEYRIKHSDOFF, N.G., inzh.

~~Preventing the formation of cracks in welding~~ AMts aluminum  
alloys. Svar. proizv. no.10:16-18 0 '57. (MIRA 11:1)

1.Ural'skiy vagonostroitel'nyy zavod.  
(Aluminum-manganese alloys--Welding)  
(Metallography)



*PORTNOY, N.D.*

135-10-5/19

AUTHOR: Portnoy, N.D., Candidate of Technical Sciences, and  
Geinrikhsdorf, N.G., Engineer

TITLE: Preventing Cracks When Welding the Aluminum Alloy "AMu"  
(Preduprezhdeniye poyavleniya treshchin pri svarke alyuminiyevogo  
splava "AMu")

PERIODICAL: Svarochnoye Proizvodstvo, 1957, No 10, p 16-18 (USSR)

ABSTRACT: The article represents the experience of the Urals Railroad Car  
Plant with welded structures made of aluminum alloys "AMu"  
During investigations at this plant and at the Electric Welding  
Institute imeni Paton it was observed that formation of hot cracks  
during welding subject alloys were caused chiefly by the iron  
and silicon contents. The standard "ГОСТ 4784-49" permits a con-  
tent of Fe up to 0.7 % and of Si up to 0.6 %, which was found  
to be too high. The plant developed its own technical require-  
ments with the assistance of the Institute imeni Paton (Doctor of  
Technical Sciences V.I. Dobatkin is mentioned in this connection).  
The information given in the article covers the full chemical  
composition of the readily weldable alloy "AMu", the flux "AH-A1Φ"  
and the coating "A1Φ" containing ferrosilicon. These com-

Card 1/2

PALLADIN, A.V., akademik; FEDORCHENKO, I.M., akademik; GULYY, M.F., akademik; BAKULIN, D.I.; MEL'NIKOV, N.P., kand.tekhn.nauk; OKERBLOM, H.O., prof., doktor tekhn.nauk; LYUBAVSKIY, K.V., prof. doktor tekhn.nauk, laureat Stalinskikh premiy; PORTNOY, H.D., kand.tekhn.nauk; TSYBAN', N.G.; KULIKOV, M.S., dotsent; AGRONOMOV, S.N., inzh.; POLYAKOV, V.A., inzh.; SHERSTYUK, V.N., inzh.

Congratulations on the publication of the issue no.100 of the "Avtomaticheskaia Svarka" journal. Avtom.svar. 14 no.7: 3-8 J1 '61. (MIRA 14:7)

1. Prezident AN USSR (for Palladin).
  2. AN USSR, glavnyy uchenyy sekretar' AN USSR (for Fedorchenko).
  3. AN USSR, predsdatel' re-daktionno-izdatel'skogo soveta AN USSR (for Gulyy).
  4. Uchenyy sekretar' AN USSR (for Bakulin).
  5. Direktor instituta "Proyektstal'konstruktsiya" (for Mel'nikov).
  6. Predsdatel seksii svarochnogo proizvodstva Tekhniko-ekonomicheskogo soveta Leningradskogo sovnarkhoza (for Okerblom).
  7. Glavnyy svarshchik Uralvagonzavoda (for Portnoy).
  8. Glavnyy inzh. zavoda im. Nosenko (for TSyban').
  9. Dal'nevostochnyy politekhnicheskii institut im. V.V.Kuybysheva (for Kulikov).
  10. Dal'zavod (for Agronomov, Polyakov).
  11. Dal'nevostochnyy nauchno-issledovatel'skiy institut po stroitel'stvu (for Sherstyuk).
- (Electric welding--- ~~Periodicals~~)

PORTNOY, N.D.; KONDRATOVICH, V.V.; RABKIN, D.M.; ZVONKOV, M.L.; BOVIN, A.I.;  
GENRIKHS DORF, N.G.; OLESHEV, Yu.V.; SHASKIN, A.Ya.; KREMERMAN, P.L.;  
KHODZHAYEV, A.I.; PISAREVSKIY, M.S.

Automatic welding of aluminum alloy products instead of manual arc  
welding with a carbon electrode. Suggestion by N.D.Portnoi and others.  
Prom.energ.11 no.4:21-22 Ap '56. (MIRA 9:7)  
(Aluminum alloys--Welding)

Portnoy, N. D.

137-1957-12-24261

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 193 (USSR)

AUTHORS: Mazel', Yu. S., Oleshkov, Yu. V., Portnoy, N. D.

TITLE: Mechanization of a Manufacturing Production Line for Open-Top-Car Loading Doors (Mekhanizatsiya linii izgotovleniya lyukov poluvagona)

PERIODICAL: Tekhnol. transp. mashinostroyeniya, 1957, Nr 2, pp 44-50

ABSTRACT: Bibliographic entry

1. Railway cars-Manufacture-Bibliography

Card 1/1

PORTNOY, N., D., LAUREATE OF STALIN PRIZE

Pa. 173T40

USSR/Engineering - Railroad Cars, Welding Nov 50

"Highly Efficient Welding Methods for Heavy Railroad Cars," Engr N. D. Portnoy, Laureate of Stalin Prize

"Avtogen Delo" No 11, pp 17-19

Describes efforts to mechanize labor-consuming welding processes; e.g., use of automatic welding under granular flux layer, and large diam electrodes in manual arc welding. Automatic welding used in 22% of welding work for gondola cars and 16% for box cars. Measures increased work quality with 45% labor reduction.

173T40

13(5,7), 32(3)

204/125-58-7-2/19

AUTHOR: Vazimirov, A.A., Clifer, G.O., Morgun, V.P., Blagodat'skiy, R.I., Portnoy, N.P. and Lyalin, M.M.

TITLE: Strength of Hatch Covers for Open Railroad Freight Cars Produced by Spot Contact Welding

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 7, pp 67-77 (USSR)

ABSTRACT: The different types of hatch covers are envisaged by the authors for production on a large scale. The first type is made of steel sheets 5 mm thick and has one longitudinal supporting beam in the middle of the cover. The second type is made of sheets 4 mm thick and is provided with two beams. Both types are produced by the method of spot contact welding. In the experimental stage, both types of covers were thoroughly tested and the following conclusions about their properties were drawn: 1) The new covers can stand a 5-7 times bigger strain than the covers used up to now (serial production); 2) Their weight is 161, respecti-

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3

NOV/195-50-7-9/12

Strength of Hatch Covers for Open Railroad Freight Cars Produced  
by Spot Contact Welding

vely 81 kg, less than that of the conventional serial type; 3) The labor used in manufacturing them is by 15% smaller than it is with the serial type of covers; 4) Less weld material is required; 5) their repair is less complicated. The higher cost of material (steel sheets) used for making them is fully covered thanks to the saving of labor and sparing of expenses for purchasing of welding material in large quantities, as well as owing to cutting down outlays required for their repair. The exploitation of railway freight cars equipped with the new type hatch covers provides an economy which rises in proportion with the number of cars using them. There are 2 tables, 3 photographs and 1 Soviet reference.

ASSOCIATION: 1) Ordena trudoovogo krasnogo znamenii institut elektro-  
svarki imeni Ye.O. Patona AN USSR (Order of the Red  
Card 2/3 Banner of Labor, Institute of Electric Welding, AS

804/125-58-7-8/19

Strength of Hatch Covers for Open Railroad Freight Cars Produced  
by Spot Contact Welding

UkrSSR imeni Ye.O. Paton)  
2, Order of Lenin, krasnogo znameni, otechestvennoy  
voyay I stepeni, trudovogo krasnogo znameni Ural'skiy  
vagonostroitel'nyy zavod (Order of Lenin, the Order of  
the Red Banner, Class I Order of the Patriotic War,  
and Order of the Red Banner of Labor Ural Car-Build-  
ing Plant)

SUBMITTED: March 31, 1959

Card 3/3



SVERZHEVSKIY, V.L.; POLOZHAY, G.T.; PORTNOY, N.Z.; BOGODEROV, M.A.;  
MARTYNYUK, V.V.

Behavior of roof rock in coal mine stopes. Ugol' 39 no.10:9-12  
0 '64. (MIRA 17:12)

1. Trest Artemgeologiya.

AUTHOR: Portnoy, R.I., Engineer 67-58-3-18/18  
TITLE: Information Material (Spravochnyye materialy)  
Technical Data for Rare Gases (Tekhnicheskiye usloviya na redkiye  
gazy)  
PERIODICAL: Kislород, 1958, No. 3, Inside of Rear Cover (USSR)  
ABSTRACT: This is a table of information containing technical data of the  
gases:

Argon technical  
Argon pure  
Argon highly pure (spectrally pure)  
Helium  
Helium highly pure (spectrally pure)  
Neon-Helium - mixture  
Neon highly pure (spectrally pure)  
Krypton technical

The table contains data concerning the chemical denomination of  
the gas and its production, technical characteristic (composition),  
tare: nature of containers, their volume, color of content. A  
special column supplies information concerning delivery, storage,

Card 1/2

Information Material. Technical Data for Rare Gases

67-58-3-18/18

particular properties of gases, etc. There is 1 table.

1. Gases--Tables. 2. Gases--Properties

Card 2/2

USCOM--DC-60062

AUTHOR: Portnoy, R. I., Engineer SOV/67-58-4-29/29

TITLE: Lubricating Oils Which Are Used in Oxygen Production  
(Smazochnyye masla, primenyayemye v kislorodnom proizvodstve)

PERIODICAL: Kislород, 1958, Nr 4, Rear Cover (USSR)

ABSTRACT: A table contains data concerning various kinds of oil which are used for rolling machines, spindles, general industrial purposes, transformers, cooling machines, freon-refrigerators, turbines, and prevacuum pumps. Data are arranged in columns and refer to: numbers according to GOST or TU, brand of oil, viscosity, ignition temperature, solidification temperature, acid content, coking properties, content of ashes, range of applicability, and special features. The table was compiled according to official State standards (GOST).

1. Lubricating oils--Applications 2. Lubricating oils--  
Properties 3. Oxygen equipment--Lubrication

Card 1/1

*R Portnoy, R.I.*  
AUTHOR: Portnoy, R.I., Engineer

67-58-2-26/26

TITLE: Technical Data Concerning Gases Supplied and Used by the Soviet Oxygen Industry (Tekhnicheskiye usloviya na gazy, poluchayemye i potrebyayemye v kislorodnom proizvodstve)

PERIODICAL: Kislorod, 1958, Nr 2, rear cover (USSR)

ABSTRACT: This paper contains tables with data concerning industrial gases. The data concern several kinds of nitrogen (gaseous, technical) and N<sub>2</sub> (liquid), NH<sub>3</sub> (liquid, synthetic), acetylene C<sub>2</sub>H<sub>2</sub> (technical), H<sub>2</sub> (technical), O<sub>2</sub> (gaseous, technical and medical), and CO<sub>2</sub> (liquefied). The data are in accordance with GOST- and TU-regulations.

AVAILABLE: Library of Congress

1. Industry--USSR 2. Gases--Standards 3. Gases--Tables

Card 1/1

TOROCHESNIKOV, N.S.; BRODYANSKIY, V.M.; PORTNOY, R.I.; ZAKHAROV, V.G.

Copper in the elimination of oxygen from a mixture containing inert  
gases. Khim.prom.no.4:224-230 Je '56. (MLBA 9:10)  
(Copper) (Oxygen) (Gases, Rare)

VLASOV, Valerian Ivanovich; BERMAN, Yakov Isaakovich; KISLOV, A.G.,  
kand. tekhn. nauk, retsenzent; PORTNOY, S.I., otv. red.;  
AZAROVA, I.G., red.; TSAL, R.K., tekhn. red.

[Design of the high-frequency units of radar stations] Pro-  
ektirovanie vysokochastotnykh uzlov radiolokatsionnykh stan-  
tsii. Leningrad, Gos.soiuznoe izd-vo sudostroit. promyshl.,  
1961. 356 p. (MIRA 15:2)

(Radar)

(Microwaves)

TARNETSKIY, Aleksey Aleksandrovich; OSIPOV, Dmitriy Dmitriyevich;  
PORTNOY, S.S., inzh., laureat Stalinskoy premii, retsenzent;  
KUPTSOVA, L.P., nauchnyy red.; NIKITINA, R.D., red.;  
SHISHKOVA, L.M., tekhn.red.

[Naval radio antennas] Antenny sudovoi radiosviazi. Leningrad,  
Gos.soiuznoe izd-vo sudostroitel.promyshl., 1960. 234 p.

(MIRA 13:11)

(Radio--Antennas) (Radio--Installation on ships)



T. Z. PORTONOV

(2)

12461\* (Electric Equipment of Drilling Installation Ural-mash-4E.) Elektrooborudovanie burovoy ustanovki uralmash-4E. T. Z. Portonov and M. G. Iun'kov. *Energeticheskiy Bulletin*, 1954, no. 4, Apr., p. 8-20.  
Control circuits for two non-synchronous motors. Diagrams, graphs, table. 1 ref.

PORTNOY, T. Z.

Subject : USSR/Electricity AID P - 1544  
Card 1/2 Pub. 28 - 4/7  
Authors : Portnoy T. Z. and Yun'kov, M. G.  
Title : On efficiency of electric drive used for drilling oil wells (Discussion)  
Periodical : Energ. byul. 1, 11-24, Ja 1955  
Abstract : The author presents the latest achievements of the scientific organizations and manufacturing plants under the auspices of the Ministries of the Petroleum, Heavy Machine Building and Electrotechnical Industries and discusses existing electric drives and equipment for drilling oil wells. AC and DC high and low voltage drives and various wiring diagrams and devices are discussed. Certain recommendations and suggestions are made, such as:  
1) the manufacturing of the electric drives developed by the above organizations is fully justified;

Subject : USSR/Electricity AID P - 3610  
Card 1/1 Pub. 28 - 1/7  
Author : Portnoy, T. Z.  
Title : Power determination of electric motors used for hoisting winches  
Periodical : Energ. byul. 10, 1-6, 1955  
Abstract : The author analyses four formulae, including those of Skvortsov and Mezhlumov, used for determination of the electric motor characteristics required for operation of hoisting winches of the U2-4-5 and U2-5-4 types. He finds them misleading or erroneous up to 32%, and presents his own formula for determination of the electric motor needed to operate a U2-4-5 hoisting winch. Three sketches and one table.  
Institution : None  
Submitted : No date

PORTNOY, T.Z.; YUN'KOV, M.G.

Electrical equipment for secondary operations connected with raising  
and lowering the tool. Energ.biul.no.4:21-29 Ap '56. (MLRA 9:7)  
(Oil well drilling--Equipment and supplies)

PORTNOY, T.Z.

PORTNOY, T.Z.; YUNKOV, M.G.

Development of electric drive for well drilling machinery and for  
petroleum extraction. Energ.biul. no.11:17-27 N '57. (MIRA 10:10)  
(Oil well drilling--Equipment and supplies)

**AUTHOR:** Portnoy, T.Z.

90-58-5-1/10

**TITLE:** The Application of High-Voltage Electromotors for Drilling Winches With a Lifting Capacity of 130 and 200 tons (O primeneniі vysokovol'tnykh elektrodvigatelyey dlya burovnykh lebedok gruzopod'yemnost'yu 130-200 t)

**PERIODICAL:** Energeticheskii Byulleten', 1958, Nr 5, pp 1-4 (USSR)

**ABSTRACT:** At the present time non-synchronous motors with a phase runner of 160 and 33 kw and a voltage of 500 v are used in the drives of lifting winches. It is therefore necessary to erect a transformer substation consisting of two transformers (TMB-320/6) for feeding two motors of 160 kw, or of 3 transformers of the same type for two motors of 330 kw. The author proposes the use of high-voltage electromotors, thereby eliminating the transformers. Costs for electric current, assembly work, cables, etc would decrease. In Table 1, the reduction of cost and equipment in the installation Uralmash 6E is given when high-voltage equipment is used. The assembly and operation work is calculated for turbine drillings of 2,000 m depth, with a monthly productivity of 1,400 - 1,600 m. The time balance of these works is given in Table 2. The total loss of current

Card 1/2

90-58-5-1/10

**The Application of High-Voltage Electromotors for Drilling Winches With a Lifting Capacity of 130 and 200 tons**

in one transformer during the drilling of one hole amounts to 2,252 kw/h. The yearly economy for a high-voltage installation is 26,252 rubels. The cost of assembling and dismounting of the transformers amounts to 6,500 rubels a year. The calculations for a 130-ton winch are summed up in Table 3. The same calculations were also carried out for a 200-ton winch, the time balance of which is given in Table 4, and the technical-economical calculations in Table 5.

There are 5 tables and 1 figure.

**AVAILABLE:** Library of Congress

**Card 2/2** 1. Drilling machines-Equipment 2. Electric motors-Applications

ARKHANGEL'SKIY, N., BABAYEV, M., GLADKOV, M., EL'YASHEVICH, Z., KAMYSHKO, A.;  
KUZYATIN, G., KULIYEV, S., MOVSESOV, N., POPOV, A., PORTHOY, T.,  
RIZNIK, A., SEROVA, Ye., TARASOV, A., TULIN, V., SHISHKIN, O.,  
SHKOL'NIKOV, B., SHTURMAN, L., CHESNOKOV, V., EFENDIZADE, A.

K.N. Kulizade, candidate of engineering. Energ. biul. no. 5:23-24  
My '58. (MIRA 11:8)

(Kulizade, Kiazim Novruz, 1908- )



Portnoy, T.Z.

AUTHOR: Motsokheyn, B.I.; Portnoy, T.Z.

90-58-6-3/7

TITLE: An Adjustable Electric Drive for Drilling Pumps (Reguliruyemyy elektropriwod dlya burovykh nasosov)

PERIODICAL: Energeticheskiy Byulleten', 1958, Nr 6, pp 15-21 (USSR)

ABSTRACT: The author demonstrates that the use of an un-regulatable drive does not permit drilling pumps to function at their full hydraulic efficiency, since it is impossible to select the optimum productivity for the different depth stages of the bore hole. A regulatable electric drive has many advantages in this respect in that: the full drive power of the pump can be used, the number of bush changes in the pump can be cut to a minimum and in a number of cases two pumps working normally can be used instead of three. In addition, altering the rotation speed permits the driller to make allowances for the depth of the bore hole, maintain any pressure constant, adjust working speeds, etc. Modern drilling pumps permit regulation of the drive within the limits 0.8 - 1.25. A typical regulatable electric drive for drilling pumps manufactured by the Uralmashzavod is described. There are 4 graphs, 1 circuit diagram, 3 tables and 6 Soviet references.

1. Drilling machines-Equipment 2. Pump drives-Electric-Operation

Card 1/1

PORTNOY, T.Z., inzh.

Present state and prospects in the development of electric drives  
for drilling rigs. Elektrichestvo no.5:52-60 My '63.

(MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektromekhaniki.  
(Oil well drilling rigs--Electric driving)

ALEKSANDROV, V.S., inzh.; VORONETSKIY, B.B., kand.tekhn.nauk;  
PORTNOY, T.Z., inzh.; TISHCHENKO, N.A., inzh.

Present-day work in the field of automatically controlled electric  
driving. Vest. elektroprom. 32 no.10:7-12 0 '61. (MIRA 14:9)  
(Electric driving).

S/196/62/000/006/011/018  
E194/E154

AUTHORS: Aleksandrov, V.S., Voronetskiy, B.B., Portnoy, T.Z.,  
and Tishchenko, N.A.

TITLE: The present state of development of automated  
electric drives

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,  
no.6, 1962, 1, abstract 6 Kl. (Vestn. elektroprom-  
sti, no.10, 1961, 7-12).

TEXT: Diagrams are given which show the relative number of  
drives in various branches of the national economy of the USSR  
and expected developments are described. New single-armature  
rolling mill motors are being developed with outputs of  
10000-12000 h.p. with high maximum output and good dynamic  
characteristics. Mercury-arc rectifiers are at present the main  
type of controlled rectifiers for industrial drive. It is  
proposed to manufacture sealed single-anode, grid-controlled  
mercury-arc rectifiers for anode currents of 250-350 and 500 A,  
including rectifiers with series connected valves and also  
modernised pumped mercury-arc rectifiers for currents up to  
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The present state of development ... S/196/62/000/006/011/018  
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1000 A per anode. New static control systems for drives types  
YM17(UMP) and YM311 (UMZP) with outputs up to 30 kW based on  
magnetic amplifiers have been developed and introduced.  
Amplifiers of up to 80 kVA per unit have been developed.

A number of new designs of automatic electric power generating  
sets of packaged design have been developed and investigations  
are being made on industrial prototype computer-controllers for  
automatic drives. Static systems with magnetic amplifiers have  
been used in the development of various drive control systems  
for metallurgy, mining, machine tool manufacture, paper machines,  
and power station auxiliaries. An automatically controlled  
drive has been developed in the metallurgical industry for a new  
automatic conveyor for charging the furnace. Automatic control  
has been provided for air heaters, casting machines, the  
furnace-top loading system and wagon weighing machines. Ionic  
rectifiers with a total current of about 1 million amps have  
been provided for non-reversing rolling mills. An ionic drive  
is being introduced for reversing rolling mills including the  
main drives of blooming and slabbing mills. Excavators

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The present state of development ...

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E194/E154

standard heavy horizontal milling machines, boring mills, and lathes. A number of heavy machine tools are provided with controlled ionic drives. A multi-motor drive with multi-generator supply system and contactless tachogenerators has been developed for paper machines, and has successfully passed industrial tests. An electrical drive system has been developed for a number of dry cargo ships, river icebreakers, and tugs. Future developments in drives are indicated. ✓

[Abstractor's note: Complete translation.]

Card 4/4

PORTNOY, Teodor Zinov'yevich; YUN'KOV, Mikhail Grigor'yevich; YUR-CHENKO, Petr Ivanovich; PEREVERZEV, V.V., red.; RASTOVA, G.V., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Electric equipment of oil well drilling rigs manufactured by the Ural Machinery Plant] Elektrooborudovanie burovykh ustanovok Uralskoy mashinostroyeniyskoy zavoda. Moskva, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1961. 230 p.

( MIRA 14:5)

(Sverdlovsk--Oil well drilling rigs--Electric equipment)





ZHEVAGO, Konstantin Aleksandrovich; FORTNOY, Teodor Zinov'yevich;  
SEKOL'NIKOV, Bernard Markovich; SOLGANIK, G.Ya., ved. red.

[Drive for drilling rigs] Privod burovyykh ustanovok. Izd.2.  
isp. i dop. Moskva, Izd-vo "Nauka," 1964. 406 p.  
(MIRA 17:7)

ZHEVAGO, Konstantin Aleksandrovich; PORTNOY, Teodor Zinov'yevich;  
SHKOL'NIKOV, Bernard Markovich. Prinimal uchastiye SUD, I.I..  
MARTYNOVA, M.P., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Boring equipment drives] Privod burovykh ustanovok. Moskva,  
Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960.  
362 p. (MIRA 13:6)

(Boring machinery)

FAYTEL'BERH, R.O.; OCHAN, S.I.; PORTNOYI, L.

Function of salivary glands in stimulation of pleural receptors. Medych. zhur.  
22 no.4:84-90 '52. (MIRA 6:10)

1. Odes'kyi sil's'kohospodars'kyi instytut. (Pleura) (Salivary glands)

PORTNOY, M.V., podpolkovnik meditsinskoy sluzhby

Changes in preserved blood during storage and transportation  
on ships. Voenn.med.zhurn. no.5:15-18 May '59. (MIRA 12:8)  
(BLOOD, PRESERVED,  
eff. of sea transportation (Rus))

VISHNEVSKIY, A.A.; DARBINYAN, T.M.; PORTNOY, V.F.; PROMTOVA, T.N.; KHARNAS, S.Sh.

Coronary and carotid perfusion of the heart from the blood circulation in hypothermia. Eksper. khir. 5 no:6:6-16 N-D '60.'

(MIRA 14:2)

(PERFUSION PUMP (HEART))

(HYPOTHERMIA)

PORTNOY, V.F.; MUZYKANT, L.I.

Histochemical study of the myocardium by various methods of  
experimental heart arrest. Exper.khir.i anest. no.6:29-34 '61.

(MIRA 15:5)

1. Iz laboratorii anesteziologii (zav. - kand.med.nauk T.M.  
Derbinyan) i otdela patomorfologii (zav. - doktor med.nauk  
D.S. Sarkisov) Instituta khirurgii imeni A.V. Vishenvskogo  
(dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy)  
AMN SSSR.

(HEART--MUSCLE)

(HEART FAILURE)

PORTNOY, V.F.

Acute form of regional ileitis. (Crohn's disease). Sov. med. 25  
no.3:117-119 Mr '61. (MIRA 14:3)

1. Из Курмышской участковой больницы Гор'ковской области.  
(REGIONAL ILEITIS)

L 14774-65 EWG(j)/EWG(r)/EWT(1)/FS(v)-3/EWG(v)/EWG(a)/EWG(c) Pb-1/Pe-5/Pa-1

AMD/AFTC(b) DD/MLK  
ACCESSION NR: AT4049171

S/0000/62/000/000/0264/0265

AUTHOR: Portnoy, V. F.; Zubareva, R. A.

TITLE: The influence of deep hypothermia on the electrical activity of the brain. [Report presented at the 14-aya konferensiya fiziologov yuga RSFSR (14th Conference of Southern Physiologists of the RSFSR), held at Krasnodar, 1962]

SOURCE: Konferentsiya fiziologov yuga RSFSR. 14th, Krasnodar, 1962. Materialy\*. Krasnodar, 1962, 264-265

TOPIC TAGS: hypothermia, EEG, brain bioelectricity, dog, brain circulation

ABSTRACT: Variations in the EEG during various states of hypothermia was investigated in 43 experiments in which: 1) dogs were externally cooled over their entire body area (15 tests), 2) dogs were internally cooled using an artificial blood-circulation system (13 tests), and 3) isolated brains of dogs were exposed to deep hypothermia by perfusion. External cooling usually brought on earlier disappearance of cerebral electrical activity, which was accompanied by cardiac disruption at 27-20C. EEG waves were maintained at 26-16C when the body was in-

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L-11774-65

ACCESSION NR: AT4049171

ternally cooled. However, this method was not free of factors leading to poor circulation in the brain, characterized by increased tonus of the magistral arteries. When isolated brains were cooled by artificial circulation, electrical activity was maintained at brain temperatures of 20—11C. Consequently, changes in cerebral bioelectricity during deep hypothermia depend upon cerebral circulation which varies according to the method used to induce hypothermia.

ASSOCIATION: Laboratoriya anesteziologii Instituta khirurgii imeni A. V. Vishnevskogo AMN SSSR, Moscow (Anesthesiology Laboratory, Institute of Surgery, AMN SSSR)

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Card 2/2

DARBINYAN, T. M.; PORTNOY, V. F.; KHARNAS, S. Sh.; AVRUTSKIY, M. Ya.;  
VINITSKAYA, R. S.

General deep hypothermia in heart surgery. Eksper. khir. i anest.  
no.2:51-58 '62. (MIRA 15:6)

1. Iz Instituta khirurgii imeni A. V. Vishnevskogo AMN SSSR  
(direktor - deystvitel'nyy chlen AMN SSSR, prof. A. A.  
Vishnevskiy)

(HEART--SURGERY) (HYPOTHERMIA)

PORTNOY, V. F.

Method of isolated artificial blood circulation and deep hypothermia of the brain. Eksper. khir. no.3:69-72 '62.

(MIRA 15:7)

1. Iz laboratorii anesteziologii (zav. - kandidat meditsinskikh nauk T. M. Darbinyan) Instituta khirurgii imeni A. V. Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A. A. Vishnevskiy) AMN SSSR.

(HYPOTHERMIA) (BRAIN) (PERFUSION PUMP(HEART))

PORTNOY, V.F. (Moskva)

Isolated deep hypothermia of the brain; survey of the literature.  
Eksper. khir. i anest. 7 no.4:67-73 J1-Ag '62. (MIRA 17:5)